

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query  | DBs                                 | Default Operator | Plurals | Time Stamp          |
|-------|------|---|-------------------------------------|------------------|---------|---------------------|
| L1    | 205  | sputter\$4 with scratch   | US-PGPUB;<br>USPAT; EPO;<br>DERWENT | ADJ              | ON      | 2009/11/18<br>10:13 |
| L2    | 174  | sputter\$4 with scratch   | US-PGPUB;<br>USPAT                  | ADJ              | ON      | 2009/11/18<br>10:14 |
| L3    | 38   | (PVD or sputter\$4)<br>with scratch adj3<br>(surface or substrate)  | US-PGPUB;<br>USPAT                  | ADJ              | ON      | 2009/11/18<br>10:16 |
| L4    | 1    | "69621063"  | EPO; DERWENT                        | ADJ              | ON      | 2009/11/18<br>10:57 |
| L5    | 0    | "0727510"   | EPO; DERWENT                        | ADJ              | ON      | 2009/11/18<br>10:57 |
| L6    | 7    | "727510"  | EPO; DERWENT                        | ADJ              | ON      | 2009/11/18<br>10:57 |
| S5    | 469  | 427/237.ccls.   | US-PGPUB;<br>USPAT                  | OR               | OFF     | 2008/09/11<br>08:20 |
| S6    | 457  | 427/249.1.ccls.   | US-PGPUB;<br>USPAT                  | OR               | OFF     | 2008/09/11<br>08:20 |
| S7    | 11   | S5 and S6   | USPAT                               | OR               | OFF     | 2008/09/11<br>08:20 |
| S8    | 13   | S5 and S6   | US-PGPUB;<br>USPAT                  | OR               | OFF     | 2008/09/11<br>08:20 |
| S9    | 2    | S8 not S7   | US-PGPUB;<br>USPAT                  | OR               | OFF     | 2008/09/11<br>08:20 |
| S79   | 1    | "4055705".pn.   | US-PGPUB;<br>USPAT                  | ADJ              | OFF     | 2009/05/20<br>09:40 |
| S80   | 1    | "6123997".pn.   | US-PGPUB;<br>USPAT                  | ADJ              | OFF     | 2009/05/20<br>09:41 |
| S81   | 6    | "3,542,530".pn. or<br>"3,676,085".pn. or<br>"3,754,903".pn. or<br>"3,928,026".pn. or<br>"3,677,789".pn. or<br>"4,880,614".pn. | US-PGPUB;<br>USPAT                  | ADJ              | OFF     | 2009/05/20<br>09:42 |
| S82   | 3    | S81 and (Ti or<br>titanium)   | US-PGPUB;<br>USPAT                  | ADJ              | OFF     | 2009/05/20<br>09:42 |
| S83   | 51   | alpha alumina same<br>(TiC or TiCN or TiALN<br>or TiAlCrN)  | US-PGPUB;<br>USPAT                  | ADJ              | OFF     | 2009/05/20<br>09:49 |

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| S84  | 48  | ("5137774").URPN.   | USPAT              | ADJ | ON  | 2009/05/20<br>10:45 |
| S85  | 24  | S84 and (seed or nucleat\$5 or innocula \$5)                      | USPAT              | ADJ | ON  | 2009/05/20<br>10:53 |
| S86  | 5   | S85 and (seed or nucleat\$5 or innocula \$5) same (alpha) alumina | USPAT              | ADJ | ON  | 2009/05/20<br>10:54 |
| S87  | 307 | (seed or nucleat\$5 or innocula\$5) same (alpha) alumina          | USPAT              | ADJ | ON  | 2009/05/20<br>10:55 |
| S88  | 78  | S87 and (TiC or TiN or TiCN or TiALN or TiAlCrN or Ti(C,N))       | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>10:55 |
| S89  | 48  | S88 and (polish\$4 or rough\$4)                                   | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>11:05 |
| S90  | 3   | TiAlCrN and (alpha) alumina                                       | USPAT              | ADJ | ON  | 2009/05/20<br>11:06 |
| S91  | 10  | TiAlCrN and (alpha) adj2 alumina                                  | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:07 |
| S92  | 4   | TiAlCrN same oxidiz\$5  | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:13 |
| S93  | 4   | TiAlCrN same alumina  | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:31 |
| S94  | 67  | TiAIN same alumina  | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:32 |
| S95  | 8   | TiAIN same alpha alumina  | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:32 |
| S96  | 59  | S94 not S95   | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:32 |
| S97  | 1   | "4,341,834".pn.   | US-PGPUB;<br>USPAT | ADJ | ON  | 2009/05/20<br>11:40 |
| S98  | 30  | S88 not S89   | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>12:24 |
| S99  | 229 | S87 not S88   | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>12:24 |
| S100 | 101 | S99 and (polish\$4 or rough\$4)                                   | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>12:24 |
| S101 | 128 | S99 not S100  | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>12:25 |
| S102 | 30  | S87 and cutting tool  | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>12:37 |
| S103 | 57  | cutting tool same alpha alumina                                   | US-PGPUB;<br>USPAT | ADJ | OFF | 2009/05/20<br>12:40 |

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| S104 | 51  | S103 not S102   | US-PGPUB;<br>USPAT                       | ADJ | OFF | 2009/05/20<br>12:40 |
| S105 | 22  | ("6123997").URPN.                                       | USPAT                                    | ADJ | ON  | 2009/05/20<br>12:42 |
| S106 | 8   | TiAlN same alpha alumina                                | US-PGPUB;<br>USPAT                       | ADJ | OFF | 2009/05/20<br>12:52 |
| S107 | 1   | "5679448".pn.   | US-PGPUB;<br>USPAT                       | ADJ | OFF | 2009/05/20<br>12:58 |
| S108 | 13  | ("5679448").URPN.                                       | USPAT                                    | ADJ | ON  | 2009/05/20<br>12:58 |
| S109 | 2   | S108 and alpha  | USPAT                                    | ADJ | ON  | 2009/05/20<br>12:59 |
| S110 | 2   | "20030022012"   | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/09/29<br>12:53 |
| S111 | 1   | "69621063"  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON  | 2009/11/06<br>09:40 |
| S112 | 14  | "727510"  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON  | 2009/11/06<br>09:46 |
| S113 | 21  | "780484"  | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON  | 2009/11/06<br>09:47 |
| S114 | 9   | inoculation with polish \$4                             | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON  | 2009/11/06<br>09:48 |
| S115 | 0   | inoculat\$4 with polish \$4 same alumin\$4              | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON  | 2009/11/06<br>09:49 |
| S116 | 5   | inoculat\$4 same polish \$4 same alumin\$4              | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON  | 2009/11/06<br>09:49 |
| S117 | 174 | kaisha kobe.as. and alumina                             | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/11/06<br>09:56 |
| S118 | 8   | kaisha kobe.as. and alumina and tamagaki.in.            | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/11/06<br>09:56 |
| S119 | 100 | alumina.clm. and substrate.clm. and ceramic powder.clm. | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/11/06<br>10:06 |
| S120 | 17  | S119 and alpha with alumina                             | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/11/06<br>10:07 |
| S121 | 2   | "20050276990"   | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/11/06<br>10:08 |
| S122 | 9   | kaisha kobe.as. and alumina and kohara.in.              | US-PGPUB;<br>USPAT                       | ADJ | ON  | 2009/11/06<br>10:09 |

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| S123 | 1386 | taira.in.   | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:27 |
| S124 | 2    | S123 and alpha adj4 alumina   | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:29 |
| S125 | 2    | 10/551993 and (powder or size)  | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:30 |
| S126 | 3327 | sputter\$4 with powder  | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:32 |
| S127 | 354  | sputter\$4 with powder same (chromium or cr or chrome oxide or alumina)                                     | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:33 |
| S128 | 3    | sputter\$4 with powder same (chromium or cr or chrome oxide) same alumina                                   | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:34 |
| S129 | 125  | sputter\$4 with target with powder same (chromium or cr or chrome oxide or alumina)                         | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:37 |
| S130 | 15   | sputter\$4 with target with powder same (chromium or cr or chrome oxide) same (alumina or alox or aluminum) | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>10:43 |
| S131 | 51   | taira.in. and alumina   | JPO                | ADJ | ON | 2009/11/06<br>10:58 |
| S132 | 1    | taira.in. and alumina and alpha   | JPO                | ADJ | ON | 2009/11/06<br>10:58 |
| S133 | 0    | taira.in. and alumina and membrane  | JPO                | ADJ | ON | 2009/11/06<br>10:59 |
| S134 | 0    | "345556"  | JPO                | ADJ | ON | 2009/11/06<br>11:01 |
| S135 | 5    | sputter\$4 with target with powder same (alumina or alox or aluminum) and (alum\$6 same alpha)              | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>11:05 |
| S136 | 179  | sputter\$4 with target same (alumina or alox or aluminum) and (alum\$6 same alpha)                          | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>11:08 |
| S137 | 57   | sputter\$4 with target same (alumina or alox or aluminum) same alpha  | US-PGPUB;<br>USPAT | ADJ | ON | 2009/11/06<br>11:08 |

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| S138 | 37   | sputter\$4 with target same (alumina or alox or aluminum) with alpha   | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:10 |
| S139 | 2    | sputter\$4 with target same (alumina or alox or aluminum or al) adj3 alpha                                   | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:11 |
| S140 | 239  | sputter\$4 with powder with (film or deposit\$4 or coat\$4) same (chromium or cr or chrome oxide or alumina) | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:19 |
| S141 | 15   | sputter\$4 adj3 powder with (film or deposit\$4 or coat\$4) same (chromium or cr or chrome oxide or alumina) | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:23 |
| S142 | 1    | "6074279".pn.  | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:30 |
| S143 | 1068 | sputter\$4 with polish\$4 with (cemented carbide or substrate)   | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:47 |
| S144 | 91   | sputter\$4 with polish\$4 with (cemented carbide or substrate) same alumina                                  | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:48 |
| S145 | 14   | sputter\$4 with polish\$4 with (cemented carbide or substrate) same alumina and alpha                        | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:48 |
| S146 | 0    | sputter\$4 with polish\$4 with (bond coat) same alumina and alpha  | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:54 |
| S147 | 0    | sputter\$4 with polish\$4 with (bond coat) same alumina  | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:54 |
| S148 | 2    | sputter\$4 same polish \$4 same (bond coat) same alumina   | US-PGPUB; USPAT                    | ADJ | ON | 2009/11/06 11:54 |
| S149 | 1    | inoculat\$4 same (alumina or aluminum oxide) adj3 alpha  | US-PGPUB; USPAT; EPO; JPO; DERWENT | ADJ | ON | 2009/11/06 12:19 |
| S150 | 152  | nucleat\$4 same (alumina or aluminum oxide) adj3 alpha   | US-PGPUB; USPAT; EPO; JPO; DERWENT | ADJ | ON | 2009/11/06 12:19 |

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| S151 | 2  | nucleat\$4 same<br>(alumina or aluminum<br>oxide) adj3 alpha same<br>(polish\$4 or slurry or<br>past or sonic\$6 or<br>ultrasonic\$6) | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON | 2009/11/06<br>12:20 |
| S152 | 14 | nucleat\$4 same<br>(alumina or aluminum<br>oxide) adj3 alpha and<br>(low temperature) with<br>(alumina)                               | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | ADJ | ON | 2009/11/06<br>12:24 |
| S153 | 1  | "6254984".pn. and<br>alpha  | US-PGPUB;<br>USPAT                       | ADJ | ON | 2009/11/17<br>18:56 |

**EAST Search History (Interference)**

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**11/18/2009 11:00:44 AM****C:\ Documents and Settings\ jmiller5\ My Documents\ EAST\ Workspaces\ 10-551993  
Aluminia RCE.wsp**